UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,415	12/28/2001	Terry Alan Torr	10018010-1	1145

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EXAMINER
LAO, SUE X

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

	Application N .	Applicant(s)
Office Action Summary	10/034,415	TORR ET AL.
	Examiner	Art Unit
	Sue Lao	2126

-- The MAILING DATE of this communication appears on the cover sheet with the c rrespondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>28 December 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2.   Claims 1-28 are presented for examination.

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4.   Claims 7, 10-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites "said copy command code" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claims 10, 18 recite "said destination" and "said source" in lines 8-9. There are insufficient antecedent bases for the limitations in the claims.

Claim 16, 24, 27 and 28 recite "a single a copy command" in lines 2, 3, 32 and 27, respectively, which is confusing and which appears to be "a single copy command".

Claims 11-17 and 19-24 depend from claims 10 and 18, respectively.

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-11, 17-19, 25, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al (U S Patent 5,463,772) in view of Celestra ("Celestra Architecture for Serverless Backups").

As to claim 1, Thompson teaches (transparent peripheral file system TPFS) a first code arrangement (file oriented .commands, file operation commands) on a computer-readable medium, execution of which causes a processor to generate (issue) a. second code arrangement (suitable sequence of commands to the peripheral, including enhancement to the file system operation; sequence of device oriented commands) representing a copy command (read, write) and corresponding parameters thereof (data associated with the file oriented commands), the arrangement comprising:

a calling portion (file oriented commands, file operation commands) in response to which said processor is operable to begin the second-code-arrangement generation process (issue suitable sequence of commands to the peripheral); and

at least one data entity portion (command descriptor block CDB) upon which said generation process operates (adapter converts), wherein each data entity portion identifies a copy device to carry out the copy process (SFSD, col. 29, lines 6-58), a destination device to receive the copied data (data_in, DCP parameter utilities, col. 29, line 59 – col. 31, line 3), desired data that is to be copied (data associated with the file oriented commands) and a source of said desired data (data_out). See col. 16, lines 2-67, col. 17, line 1; col. 18, lines 39 - col. 19, lines 1-22; col. 36, line 52 – col. 37, line 20; col. 38, lines 8-35.

While Thompson teaches file copy operations (read, write), Thompson does not explicitly teach that the copy command is a third party copy command, nor that the copy device is a third party copy device.

Celastra teaches file copy operations implemented via third party copy (serverless backups), including third party copy command and third party copy device (Celestra copy). Pages 2-3. Therefore, it would have been obvious to use third party copy command and third party copy device to implement the copy command and copy device in Thompson. One of ordinary skill in the art would have been motivated to combine the teachings of Thompson and Celestra because this would have eliminated scheduling downtime during data protection operations (Celestra, page 1, 5th para.).

As to claims 2, 3, Thomption as modified teaches data structure in the form of an array that includes: an identifier that identifies a copy device; a destination device identifier to identify said destination device; and a source array to identify desired data to be copied and at least one source from which to copy corresponding desired data, data structure in the form of an array that is itself an element in an array of said data entity arrays (Thompson, col. 27, line 30 – col. 31, line 3). Note discussion of claim 1 for third party copy.

As to claim 4, Thomption as modified teaches at least one portion of in-line data that provides context so as to enhance a recovery operation to which said data entity portion is relevant (Celestra, page 3).

As to claim 5, Thompson teaches data entity portion identifies only a single destination to receive said copied data (TPFS, fig. 1).

As to claim 6, Thompson teaches the desired data is formed of at least two different parts such that said data entity portion correspondingly identifies at least two sources of said different portions, respectively (DCP parameter utilities, col. 29, line 59 – col. 31, line 3).

As to claim 7, Thomption as modified teaches EXTENDED COPY command defined by the Small Computer Systems Interface ("SCSI") standard (Celestra, serverless backups).

As to claims 8, 9, Thompson as modified teaches the first code arrangement is an alphanumeric text string in source code (characters, Thompson, col. 16, lines 60-67), and block within machine-executable code [it is noted that all applications are executed in machine code format. Therefore, it would have been obvious to use machine-executable code as input to the adapter.]

As to claim 10, note discussion of claim 1 and Thompson as modified further teaches application program (application, col. 16, line 64), API (file system calls, col. 26, lines 24-26), copy command generator (adapter 13), the generator begins operation in response to said calling portion (adapter receives and issues, col. 16, lines 2-67; col. 18, lines 39 - col. 19, line 22); and wherein the generator is operable to generate said second code arrangement based upon said data entity portion (adapter receives and issues, col. 16, lines 2-67; col. 18, lines 39 - col. 19, line 22).

As to claim 11, note discussion of claim 7.

As to claim 17, Thompson teaches said host, said API and said generator are each processes running on a server (fig. 1), and wherein said server includes at least one non-volatile memory, at least one processor, and at least one random access memory (RAM) arranged on at least one of: a motherboard where said at least one processor is also located; and on at least one circuit card separate from said mother board (fig. 1).

As to claim 18, it is a method claim of claim 10, thus note claim 10 for discussion.

As to claim 19, note discussion of claim 7.

As to claims 25, 26, Thompson teaches second processor (TPFS machine, fig. 2), same processor (fig. 1).

7.   Claims 16, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson et al in view of Celestra as applied to claims 10, 18 and further in view of Sparks (U S Patent 5,212,784).

As to claims 16, 24, Sparks teaches if a size of desired data is greater than a target device can accommodate via execution of a single a copy command, generating a plurality of second code arrangements with each one less than all of the desired data (concurrent back up, col. 1, line 65 – col. 2, line 15). Therefore, it would have been obvious to generate a plurality of second code arrangements with each one less than all of the desired data to implement the copying desired data greater than a target device can accommodate via execution of a single a copy command in Thompson as modified. One of ordinary skill in the art would have been motivated to combine the teachings of Thompson as modified with Sparks because this would have achieved copy operation without requiring extraordinary amount of time and without changes to the operating system (Sparks, col. 1, lines 50-59).

8.   Claims 27 and 28 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

9.   Claims 12-15, 20-23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (571) 272-3764. A voice mail service is also available at this number. The examiner's supervisor, SPE Meng-Ai An, can be reached on (571) 272 3756. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 21, 2005

SUE LAO
PRIMARY EXAMINER